

## ***We Back the Bay!***

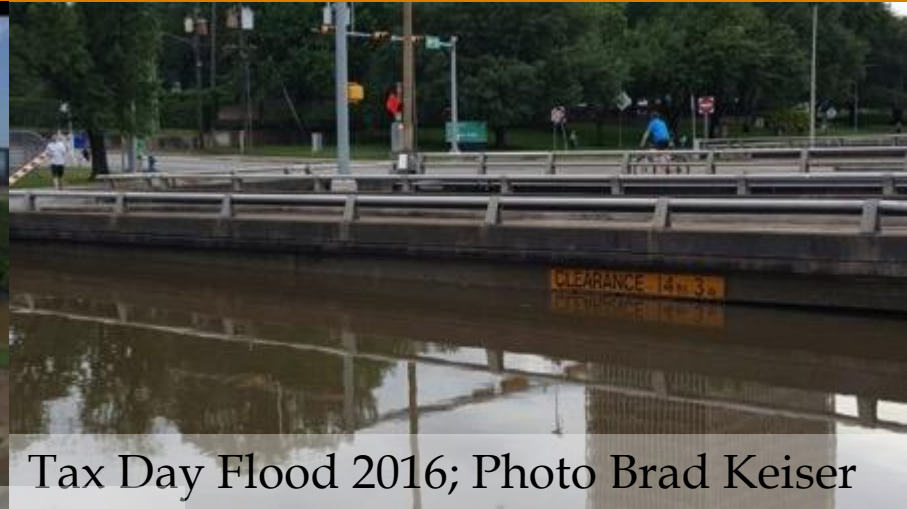


Amanda Rinehart  
Education Program Manager

# Houston, we have a problem!



Memorial Day Flood 2015; Photo: MGN online



Tax Day Flood 2016; Photo Brad Keiser

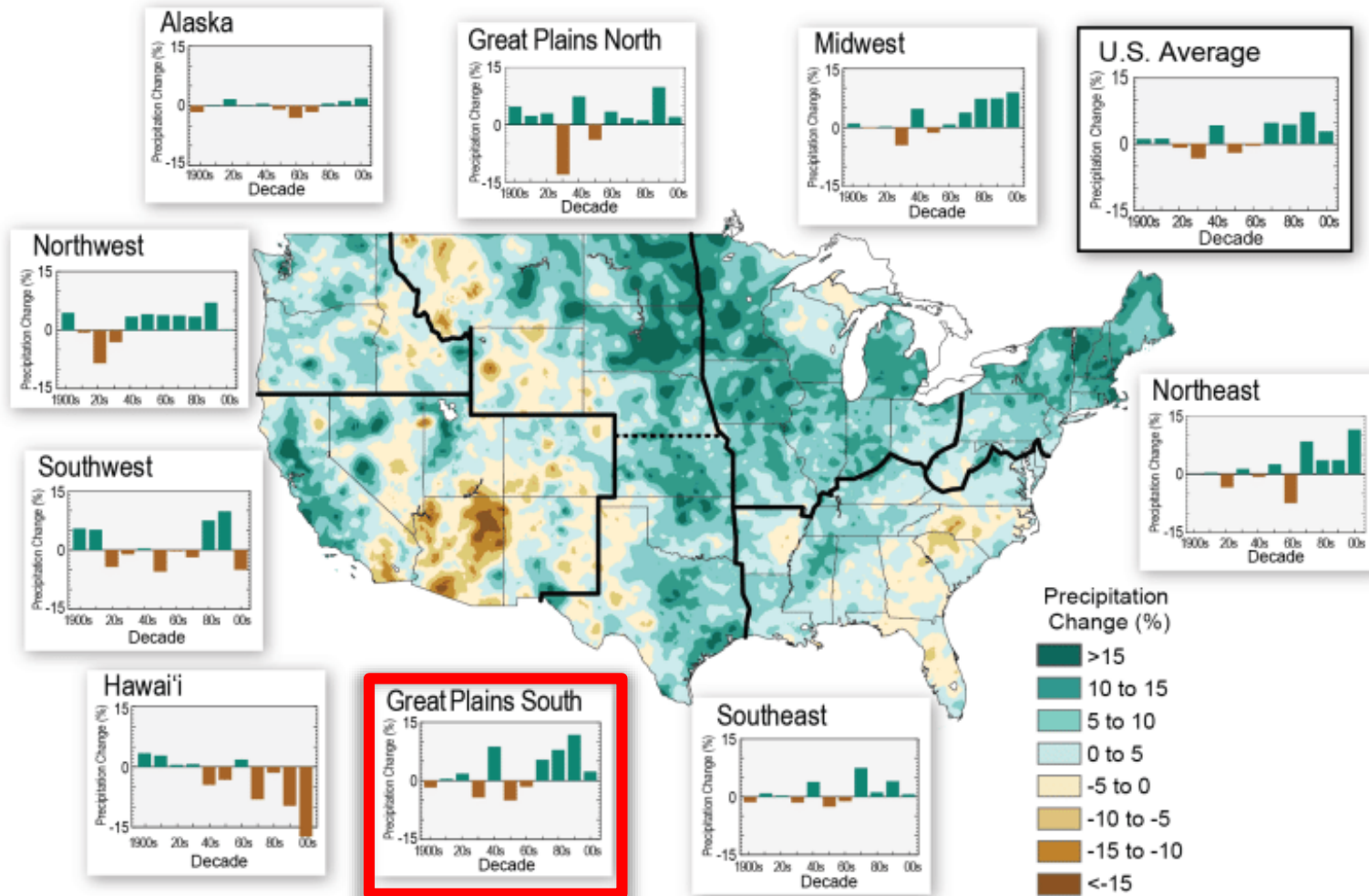


Hurricane Harvey 2017; Photo: Debi Feeney

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# More precipitation predicted for the coast of Texas...

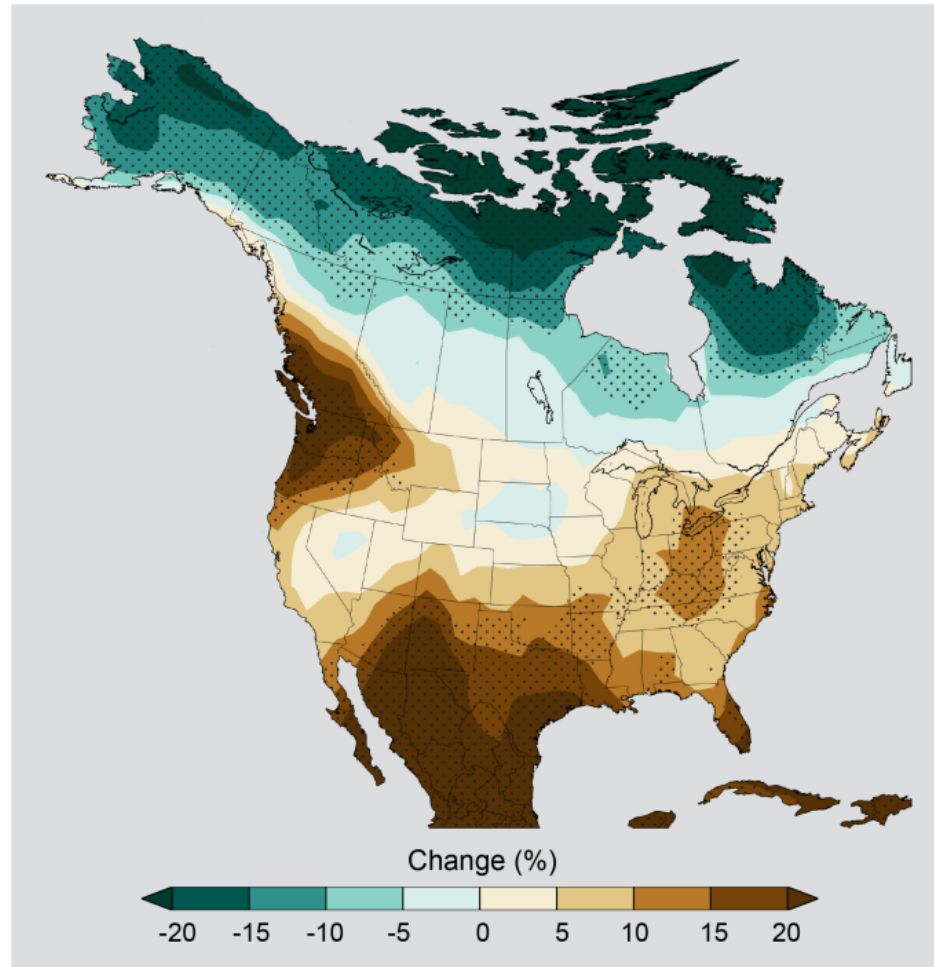
Observed U.S. Precipitation Change



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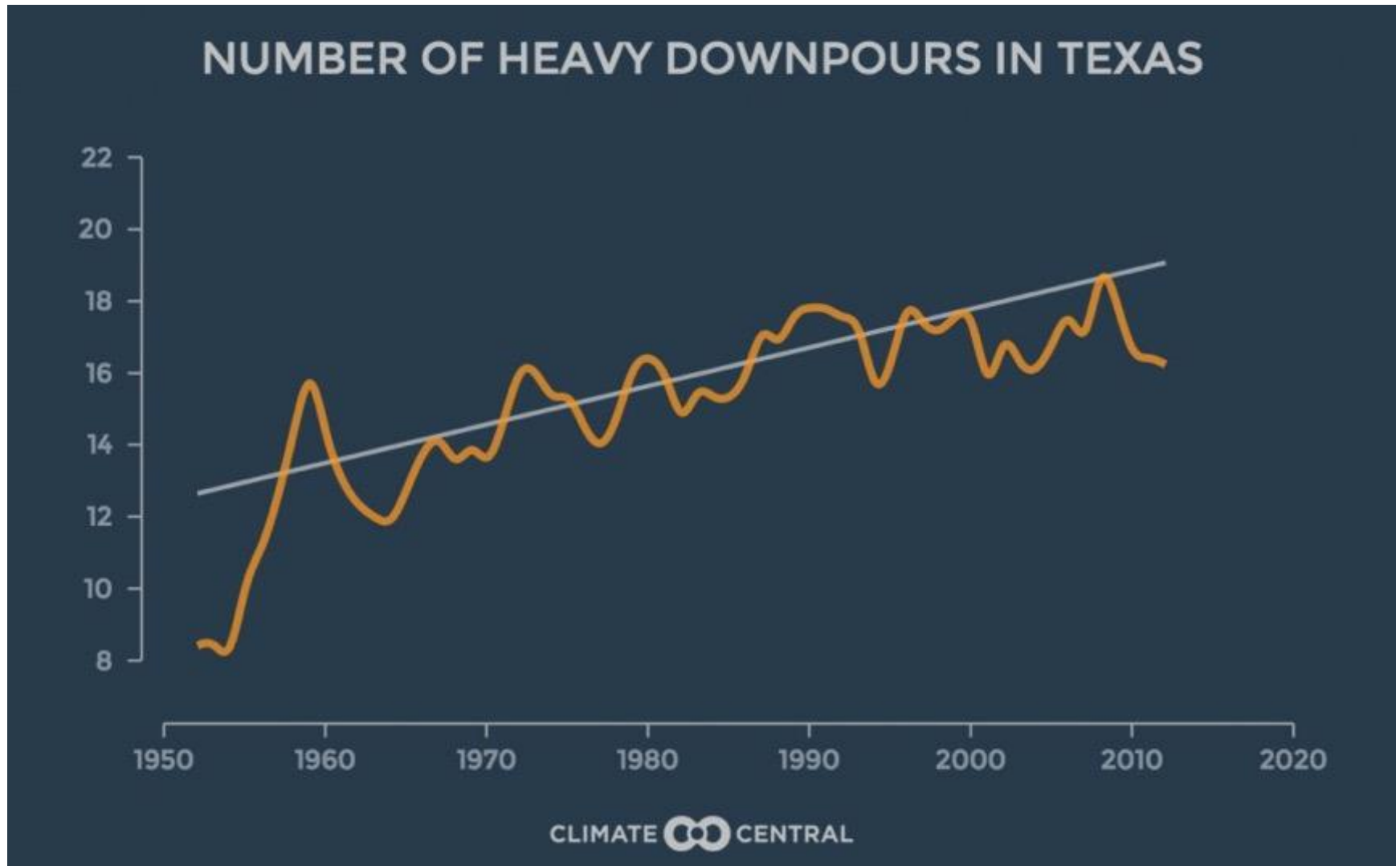
# But more consecutive dry days...

Change in Maximum Number of Consecutive Dry Days



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# More extreme weather is in our future



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# Houston, we have a problem!



Photo: Flickr user Jan Buchholtz

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# We Back the Bay!

Create **awareness** of impact of development on water quality of the Bay

Develop **critical thinking** skills to mitigate pollution and surface water runoff

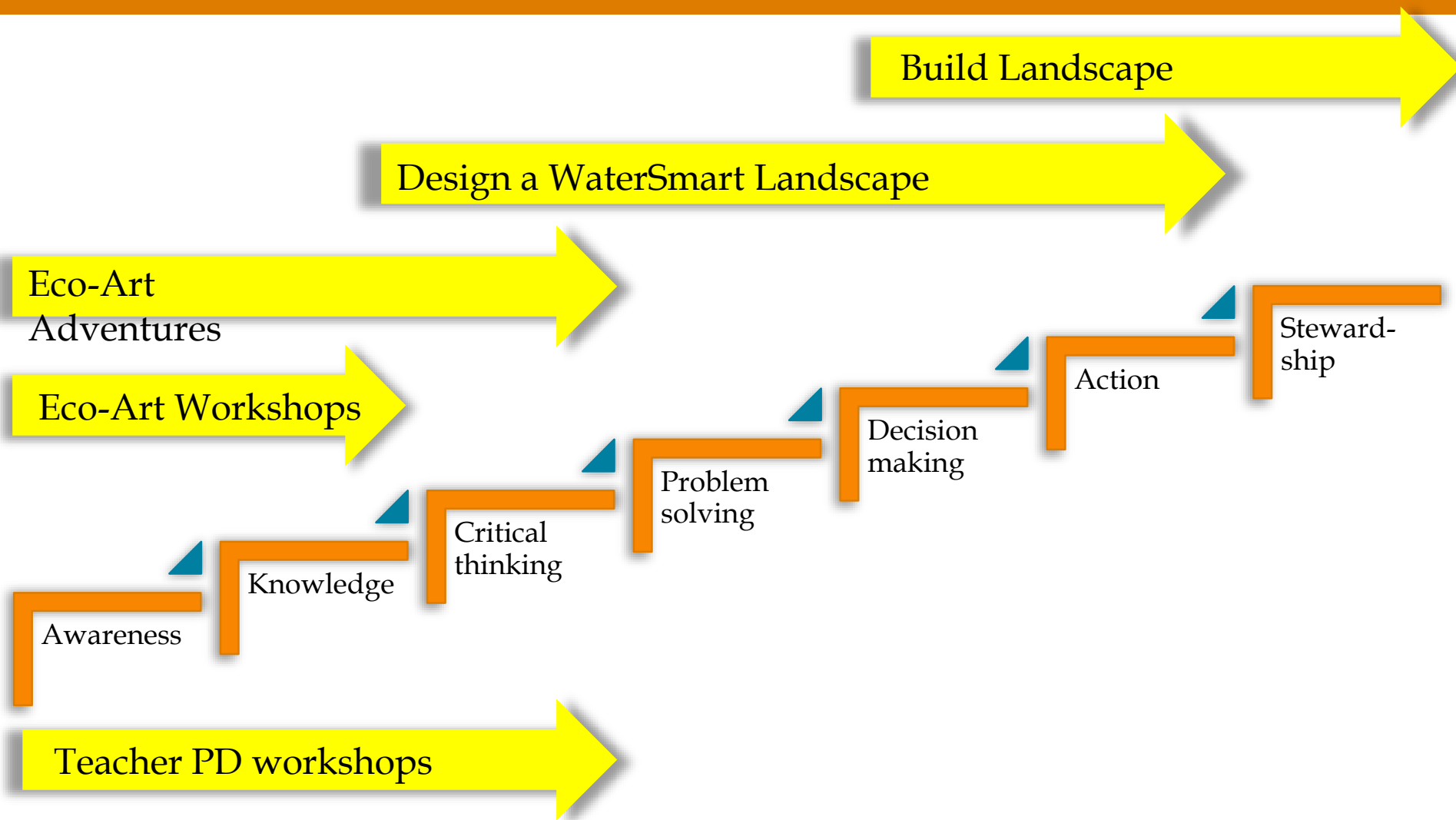
Create **action** to reduce surface water runoff from school campuses



Artist Boat received financial support from the EPA under an assistance Agreement.

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# EPA's Environmental Education Continuum



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# Outreach using Back the Bay



**BACK**  
— THE —  
**BAY**

**P R E S E R V E**  
**G A L V E S T O N B A Y**

10% of their budget had to be used to promote positive action using “Back the Bay”



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# Northside HS



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# Westside HS



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# Odyssey Academy



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# Dickinson HS



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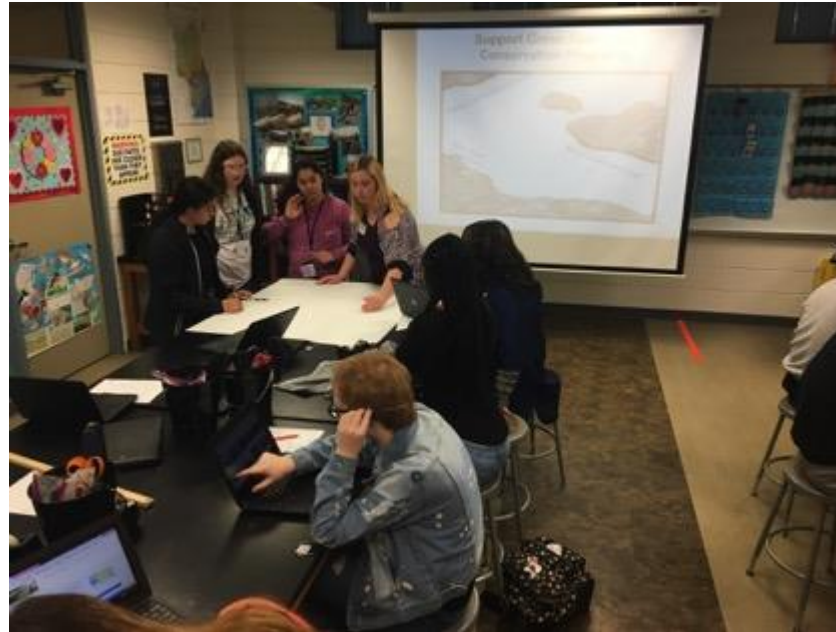
# Harmony School of Technology



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# We Back the Bay Outreach



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# We Back the Bay Outreach



<https://www.youtube.com/watch?v=zbl-QPekeoc>



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# Evaluation of program goals

We administered pre/post survey and assessment using survey monkey

We Back the Bay Post Survey 2018-2019

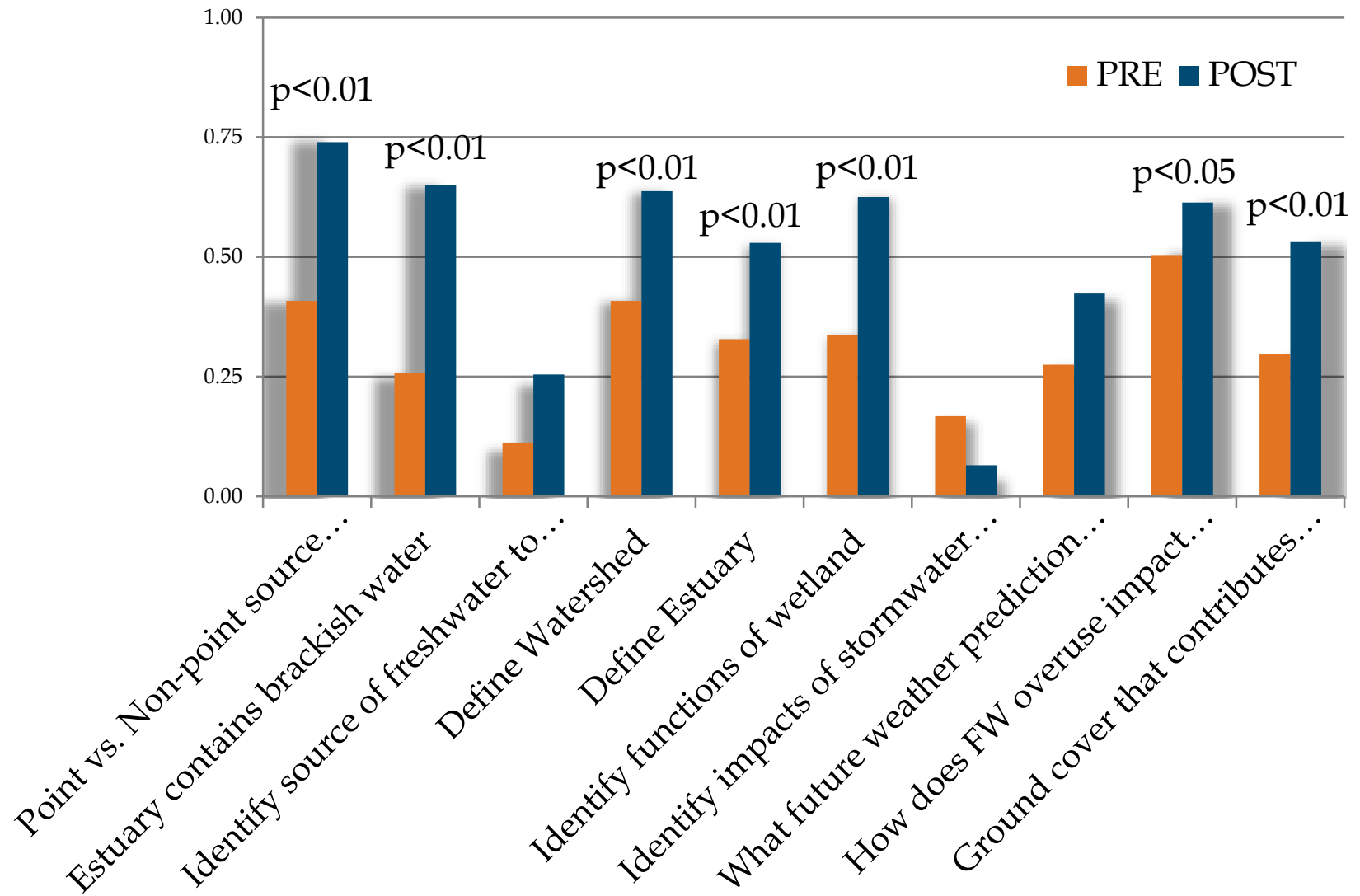
Please give us your opinion BEFORE and AFTER participation in We Back the Bay

\* 11. What was your opinion of the following statements BEFORE participation in We Back the Bay:

	Strongly Disagree	Disagree	Agree	Strongly Agree
Galveston Bay area is beautiful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Galveston Bay water is clean.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would swim in Galveston Bay.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is safe to eat seafood from Galveston Bay.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Gulf of Mexico water is clean.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would swim in the Gulf of Mexico.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is safe to eat seafood from the Gulf of Mexico.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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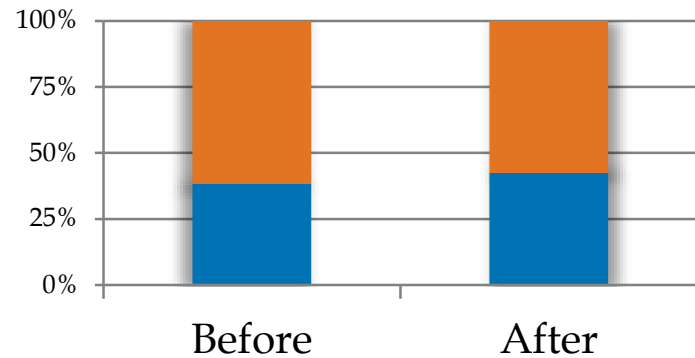
# Knowledge increased following participation



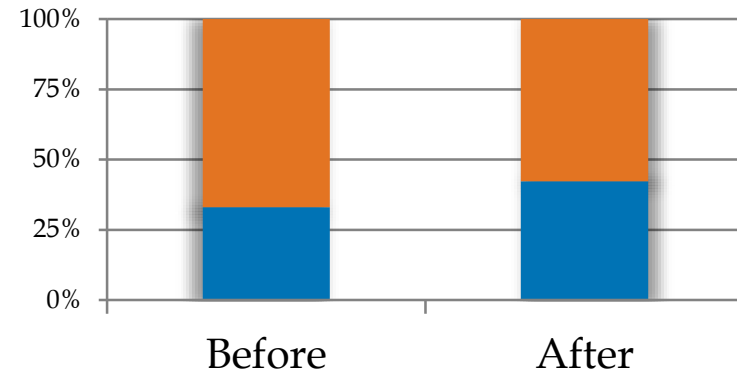
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# Attitudes improved following participation

**\*It is safe to eat seafood  
from Galveston Bay  
( $p < 0.001$ )**



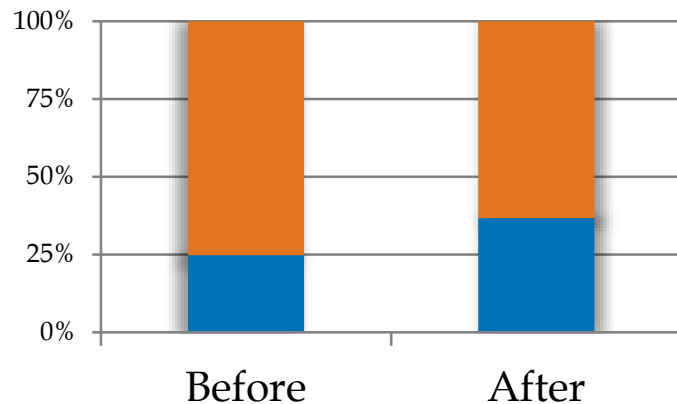
**\*The Gulf of Mexico is  
clean ( $p < 0.001$ )**



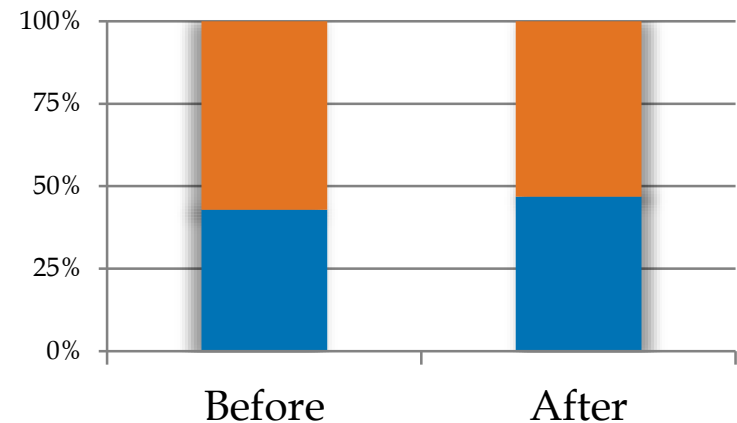
Strongly disagree  
+ disagree

Strongly  
agree + agree

**Galveston Bay is clean**



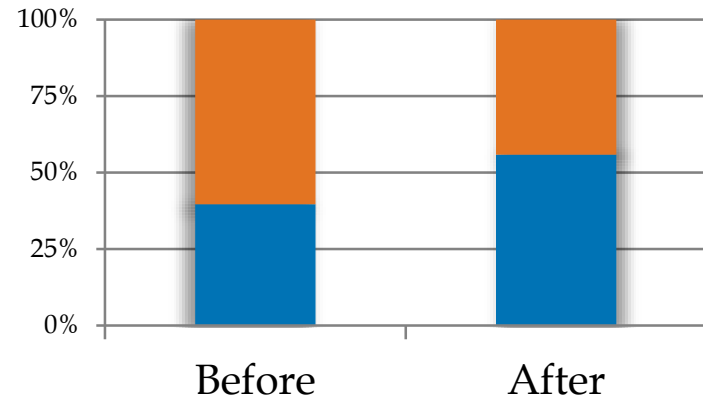
**Galveston Bay is beautiful**



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# Stewardship behaviors improved

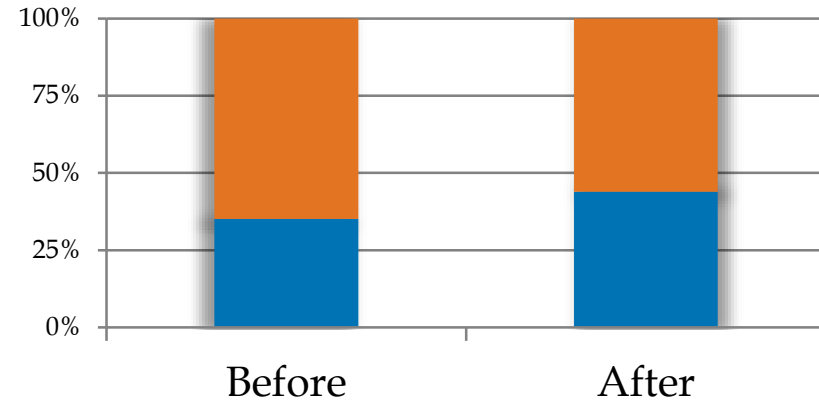
**\*I pick up litter ( $p < 0.005$ )**



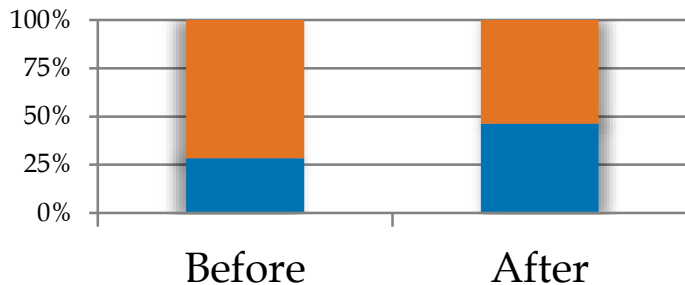
Never + Once  
in a while

Always +  
Most of the  
Time

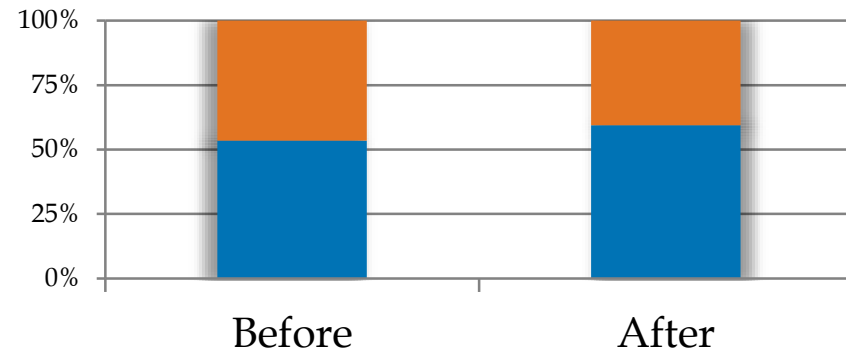
**\*I participate in community  
trash clean ups ( $p < 0.001$ )**



**\*I participate in events to  
plant native trees,  
grasses, and wetland  
plants ( $p < 0.001$ )**



**\*I save water when possible  
( $p < 0.01$ )**

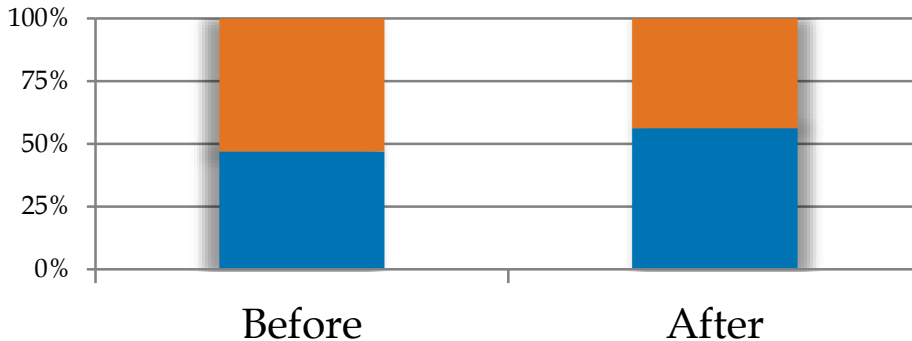


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# Students empowered to impact the Bay

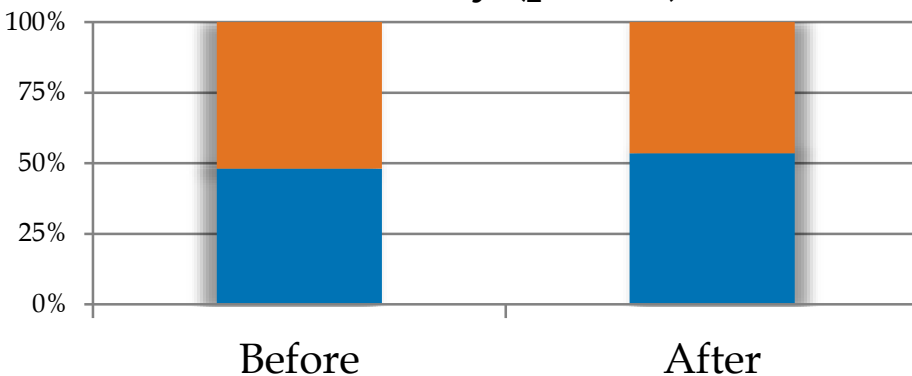
**I know how to make a difference  
to create and maintain green  
spaces**



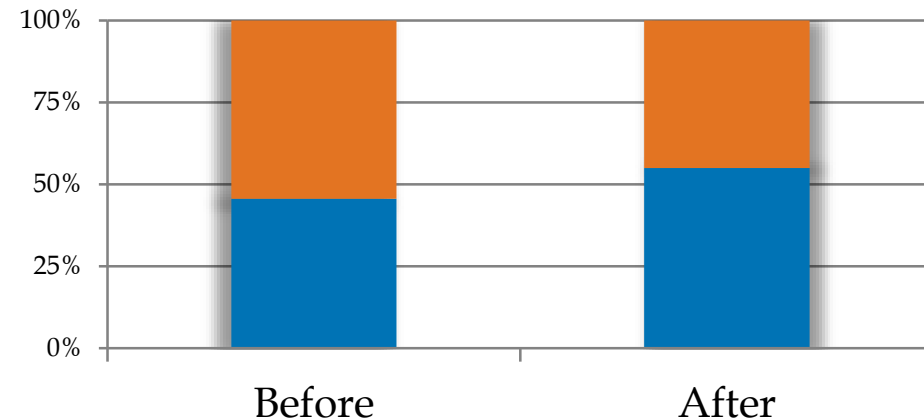
Strongly disagree  
+ disagree

Strongly  
agree + agree

**\*I know how to make a difference  
to impact flooding in my  
community (p<0.05)**



**\*I know how to make a difference  
to impact water quality of  
Galveston Bay (p<0.005)**



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# We Back the Bay!

Create **awareness** of impact of development on water quality of the Bay

Develop **critical thinking** skills to mitigate pollution and surface water runoff

Create **action** to reduce surface water runoff from school campuses



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## Excerpt from dedication speech by Alex Masewicz, Westside High School

“....I think the reason people don't try to help, whether it's with the environment or with their neighbor, is because they think it won't make a difference. **After this experience, I learned that trying to help the planet, even in a small way, is a lot more productive than not doing anything at all.** Through this project within our community, **young people have been encouraged and energized about helping the environment,** and that is something they can share with their friends, families, and one day, their kids, spreading the message about maintaining and loving this planet.”

